

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-8 (Canceled).

Claim 9 (Currently Amended): An on-board generation system comprising:
an on-board combustor mounted to a vehicle independently from an engine thereof;
a high-temperature system line for circulating a thermal medium for receiving heat caused through a combustion process in the combustor;
a low-temperature system line for circulating a medium on a low-temperature side which is subjected to heat exchanging with the thermal medium; and
an electric generator, arranged between the high-temperature system line and the low-temperature system line, for recovering the thermal energy of the thermal medium as electric energy,
wherein the electric power generated by the electric generator is supplied to a power source including either one of an on-board battery and a power supply element for driving a vehicle equipment, and the electric generator comprises a thermoelectric converter composed of a thermoelectric semiconductor which contains, as a major component thereof, either one of skutterudite or a thermoelectric semiconductor having a filled skutterudite-type crystal structure or half-Heusler-type compound.

Claim 10 (Original): An on-board generation system according to claim 9, wherein the thermal medium on the high-temperature system line is either one of a combustion gas in a combustion chamber of the on-board combustor and an exhaust gas discharged from the combustion chamber, and the low-temperature side medium is either one of an air outside a vehicle and an air inside the vehicle.

Claim 11 (Original): An on-board generation system according to claim 9, wherein the thermal medium on the high-temperature system line is either one of a combustion gas in a combustion chamber of the on-board combustor and an exhaust gas discharged from the combustion chamber, and the low-temperature side medium is a water circulated from either one of a radiator and an on-board heating system.

Claim 12 (Original): An on-board generation system according to claim 9, wherein the thermal medium on the high-temperature system line is an exhaust gas subsequent to the combustion process in a combustion chamber of the combustor, and the low-temperature side medium is a water circulated from either one of a radiator and an on-board heating system.

Claim 13 (Original): An on-board generation system according to claim 9, further comprising an exhaust gas cleanup device arranged in an exhaust gas line extending from the on-board combustor, said exhaust gas cleanup device including a discharge reactor for generating chemically active species by carrying out a discharging process to the exhaust gas and a catalyst reactor having a catalyst activated by the chemically active species generated in the discharge reactor.

Claim 14 (Original): An on-board generation system according to claim 13, wherein the electric generator supplies power to at least one of the exhaust gas cleanup device and the power source including either one of the on-board battery and the power supply element for driving a vehicle equipment.

Claim 15 (Canceled).

Claim 16 (Currently Amended): An on-board generation system according to claim 15, wherein one of the thermoelectric converter, ~~a thermionic energy converter and the combination thereof~~ constitutes a generation module.

Claim 17 (Original): An on-board generation system according to claim 16, wherein the combustor has a cylindrical combustor casing and at least one of the generation modules is mounted to an outer peripheral surface of the combustor casing.

Claim 18 (Original): An on-board generation system according to claim 16, wherein the combustor has a cylindrical combustor casing and at least one of the generation modules is mounted to an inner peripheral surface of the combustor casing.

Claim 19 (Original): An on-board generation system according to claim 9, wherein the electric generator comprises either one of a voltage step-up unit and a voltage step-down unit for adjusting the generated power to a load during use.

Claim 20 (Original): An on-board generation system according to claim 9, wherein the electric generator comprises a voltage detecting circuit for automatically detecting and discriminating the generation of voltage, said voltage detecting circuit controlling a power supply by making or breaking an electric line supplying power from the electric generator to a load.